7 September 1961

MEMORANDUM FOR: Chief, TP&D3

SUBJECT: Trip Report (Los Angeles, California, 21-31 August 1961)

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1. The undersigned, along with [redacted] of this office, visited the [redacted] for the purpose of monitoring three current contracts: (1) the HTA-3 Wide Film Processor; (2) the Image Quality Meter; and (3) the Image Enhancement Device. The first three days of this period were spent with [redacted] at which time the Image Quality Meter and Image Enhancement Device were extensively discussed. The 13th and 14th Monthly Progress Report, Image Quality Meter, Contract No. [redacted] Task No. 2, and the 14th and 15th Monthly Progress Report, Image Enhancement Program, Contract No. [redacted] Task No. 1, are enclosed.

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2. The Image Quality Meter is nearing completion and some preliminary tests were conducted on this instrument. The values obtained for acuteness and granularity are fairly valid determinations provided the proper imagery is selected. The values obtained for the resolution reading will require considerable operator judgement as to the type of imagery and the density and the physical location within the format area. This instrument is scheduled for delivery early this fall.

3. The Image Enhancement Device is still in the breadboard stage and an operational test was not possible due to the absence of some component parts. Suggestions for a training and maintenance program on these two instruments are forthcoming from [redacted] expressed confidence that density differences in the order of .02 could be expanded to .20 in the toe of the D log E curve. During this period of the visit, final tracking adjustments and calibration of the HTA-3 Film Processor were being carried on concurrently.

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4. On 25 August, the test film was delivered by Col. White of March Air Force Base. 1800 ft. of thin base film was exposed in a B camera configuration. A similar package of 1800 ft. constituting the right half of the format was forwarded to Westover Air Force Base to be processed in the HTA-4 Film Processor. Since

this film was classified Secret due to the camera configuration, it was necessary to do the test processing at night after the plant employees had left. Results of this test confirmed our original suspicions regarding the capacity of the dry box. Certain modifications proposed by [redacted] for the basic EH-6 dry box failed to increase the basic drying rate above 6 ft. per minute. When the processor was run at speeds in excess of 10 ft. per minute, the film failed to emerge from the dryer. At 7½ ft. per minute, the film was not completely dry but was accumulated on the takeup assembly. Indications are that a proper drying rate for the existing ambient conditions of temperature and humidity would be approximately 4½ ft. per minute. The minimum specifications called for 30 ft. per minute. On this basis the equipment was rejected. On the following day, a con-[redacted] At this conference the [redacted] redesign the dryer at no additional cost. It was pointed out that the basic processor had excellent tracking characteristics and had considerable commercial application, but in its present form it would be dryer limited as was the case of the EH-6. It was suggested that the dryer be of modular construction so that users of the HTA-1 and -2 and the EH-6 could be furnished this unit to increase processing rates. Engineering and fabrication of the new dryer is scheduled for completion and testing on 24 October 1961, at which time some additional exposed film will be required for proper testing. It is suggested that this film be exposed in an unclassified camera so that all interested persons of [redacted] can participate in the final testing. The undersigned was authorized to act as courier for the processed test film and it was delivered to NPIC on the morning of 1 September 1961. Personnel of the [redacted] extended every courtesy to the NPIC contract monitors. It is estimated that the engineering, redesign and fabrication of a proper drying system will cost the [redacted] approximately [redacted] and their complete cooperation in this regard is gratefully acknowledged. It is the opinion of the undersigned that the HTA-3 Wide Film Processor, when equipped with the new dryer, will have considerable application in the commercial and military establishments. The effectiveness of this equipment will provide high quality, high speed, trouble free film processing and, as such, will considerably advance the state of the art.

[redacted]

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